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# Georgia Power and Gas Infrastructure Project (PGIP)

QUARTERLY REPORT  
Q2 FY 2010

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January 28, 2011

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Contracting Officer's Technical Representative/Senior Engineer  
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**Re: Contract No. AID-EDH-I-00-08-00027-00–AID-114-TO-10-00003. USAID/Caucasus - Georgia Power and Gas Infrastructure Project; Quarterly Report for Second Quarter FY 2010**

Dear [REDACTED]:

In accordance with the requirements of EDH-I-00-08-00027-00, and on behalf of the Tetra Tech team, please find our Final Quarterly Progress Report for the Second Quarter Fiscal Year 2010. The report covers the period of September 1, 2010 through December 31, 2010.

We look forward to your review and welcome your comments and suggestions.

Very truly yours,

[REDACTED]

Chief of Party

# GEORGIA POWER AND GAS INFRASTRUCTURE PROJECT QUARTERLY REPORT FY 2010

January 28, 2011

## **DISCLAIMER**

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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## 1.0 Executive Summary

This is the Second Quarterly Report submitted under Task Order **AID-EDH-00-08-00027 – AID-114-TO-10-00003**; Georgia Power and Gas Infrastructure Project. The reporting period is for September 1, 2010 through December 31, 2010.

Table 1-1 Active Q2 Work Orders										
Work Order Type	Sector									
Administrative Work Orders	Power Infrastructure	Gas Infrastructure	Tender Documents	Construction Oversight	Capacity Building	Public Relations and Branding	Quality Assurance and Quality Control	Environmental Assessment	Design Activities	Procurement Plan
Long Term Orders										

## 2.0 Program Staffing

### 2.1 Expat Staffing

Table 2-1 International Staffing and Deployment			
Employee Name	Position	Georgia Arrival	Georgia Departure

### 2.2 Expat Staffing Challenges

Tetra Tech has no expat staffing challenges.

## 2.3 Local National Staffing

Table 2-2 Local National Staffing		
Employee Name	Position	Start Date
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

## 2.4 Local National Staff Challenges

Tetra Tech has no local national staffing challenges.



### **3.0 Contract/Task Order Activities**

#### **3.1 Gas Infrastructure Development and Rehabilitation**

##### **3.1.1. Performed Studies and Reviews**

In the Second Quarter of 2010 the main stream of the PGIP team activities was continuously related to preparation and implementation of the Senaki – Poti – FIZ and the Saguramo – Khashuri pipeline rehabilitation projects.

The team was involved in all major operations from design planning to construction monitoring. These activities included studies and reviews of the following documents provided by GOGC and the project contractors:

- HSS control implementation documents.
- Procedures and plans related to project implementation developed by the project contractors and GOGC. Drawings, initial design and changes in the project design, including route and material's type and quantity. Specifications, QA/QC Inspection procedures and their implementation.
- The amended pipeline project details: engineering surveys, calculations, drawings, environmental issues, technological issues and organizational part. As a result, the team made positive assessment of general project, except of implementation schedule. The schedule was reconsidered based on the PGIP team recommendations.
- The Material's bid status, construction work's bid status, initial drawings of the construction, the inspection plan and other related documents. On each of them the team has provided opinion and relevant recommendations.
- Calculations related to Rioni aerial crossing performed by specialist of LTD „Transport“. Certain mistakes were detected and amended based on the team's recommendations.
- Studied and provided opinions about the project implementation speed, methods and solutions how to increase it.
- All invoices submitted to USAID by the companies (relevant Letters on No Objection were issued)
- Environmental assessments, project implementation schedules and etc..

##### **3.1.2. Field Operations**

The PGIP team had carried out very close monitoring of field activities. Namely the team has:

- Performed constant visits to construction sites, as well to GOGC and contractor's warehouses and construction preparation fields. More details about the visits are presented in following paragraphs.

- Performed supervision over steel pipe sample preparation processes.
- Participated in selection of competent licensed company for performing an expertise for determining the qualitative characteristics of the pipes.
- The team was involved in abovementioned testing process as well. Results of the examination were positive and pipes were found to be of an appropriate quality (defined by technical standards).
- Based on the site observations, the team has proposed numerous changes and amendments in construction processes. They were related to: health and safety rules, environmental issues, amendments in quality control mechanisms and processes, welding speed and techniques, quality of performed works, soil preparation and tipping activities, usage of excavators, bulldozers and other special techniques. As well number of recommendations related to different engineering and management solutions.
- The team took part in development of both major and minor work streams and in solution finding efforts for occurring problems, such as: increasing the number of steel pipe footings for particular engineering solutions, support in trench preparation organization, recommendations in relation to KC type steel pontoon usage and many more..

### 3.1.3. Meetings

The PGIP team has held large number of official and informal meetings for ensuring full involvement in the processes and providing appropriate recommendations.

The PGIP team recorded and reported the following formal meetings:

On **September 1, 2010** during the meeting with GOGC representatives, the sides have discussed and studied:

- Materials Bid Status
- Construction Works Bid Status
- Construction Drawings
- The Inspection Plan
- Pipes Samples
- Progress Schedules

On **September 2, 2010** the following items were reviewed with GOGC:

- Environmental issues indicated by USAID.
- Construction Drawings.

As a result relevant steps were planned in relation to environmental issues and it was agreed that if there will be any problems with understanding of the action plan or any contingency will emerge, the GOGC representatives will immediately involve the Tt experts.

As regards to the drawings, the work was not fully completed yet and the Tt team couldn't provide any comments at current stage.

On **September 3, 2010** during the meeting with GOGC representatives following discussions took place:

- The meeting's main subject was review of the project implementation timeframes. The GOGC team has expressed concerns in relation to number and types of documents requested by USAID and the PGIP team. Preparation and review of all materials will jeopardize timely commencement and therefore completion of the Senaki – Poti pipeline project.  
The PGIP team has explained the importance of the documents and their quality assessment. The following documents were agreed to be submitted before and during the project implementation:
  - Progress Schedule                      - before the construction works
  - Breakdown for Payment               - before the construction works
  - Construction Drawings               - before the construction works
  - Inspection Plan                         - before the construction works
  - Contractor HSS Plan                   - after the construction work starts
  - Hydrotesting Plan                      - after the construction work starts
  - X – Ray Plan                             - after the construction work starts
  - Transportation Plan                   - after the construction work starts
  - Schedule of Materials                 - after the construction work starts
- The following discussions were related to the construction tender results. The GOGC representatives explained that the lowest bidder for the Lot IV withdrew his proposal and refused to participate in the project.  
Further review made clear that the second best bidder withdrew as well.  
It was decided that GOGC will deploy relevant penalties against the companies.  
Due to the mentioned situation tender was won by the third best bidder. Provisional discussions with the company representative already took place and the latter expressed readiness to proceed with implementation.
- During the meeting participants as well reviewed:
  - GOGC Inspection Plan.
  - GOGC Construction Management Team qualification issues.
  - Project Kick - off Meeting planning.

On **September 9, 2010** the PGIP and GOGC representatives met and discussed the following items:

- Environmental concerns, which were expressed by USAID's Environmental Advisor. The GOGC representatives took commitment to review all 8 comments provided by the advisor and to provide responses.
- These comments are not making it necessary to reconsider the selected route and it will not be changed.
- It was agreed that GOGC will draft response based on agreed principles and the parties will meet for final review.

On **September 15, 2010** the PGIP team and GOGC representatives met and discussed the following items:

- The status of contract signature with USAID
- Materials purchase status (purchase orders)
- Construction Works - Although the contract between GOGC and USAID was not signed yet, GOGC went ahead and gave green light to the contractor to proceed with implementation. Based on the permission the contractor for the lots I, II and III commenced man power and material mobilization.
- Construction Drawings:
  - The PGIP team has performed preliminary review of the drawings and final comments are under way.
- The Contract Progress Schedules
  - GOGC is reviewing them and will provide to the PGIP team in the nearest future.
- Saguramo – Khashuri Project
  - GOGC is beginning review of the EA and will take opinion from the Tetra Tech and USAID Environmental Advisors

On **September 17, 2010** the PGIP team and GOGC representatives met and shared following information:

- Mobilization for construction works is going on a satisfactory level and the contractor is starting transportation of pipes from GOGC pipe yard.
- The GOGC inspection team, which includes environmental inspectors is already on the site.
- GOGC still has to provide the Project Schedule for Lot IV and the construction drawings
- Parties have agreed GOGC to send to PGIP on a weekly bases following reports:
  - Weekly inspection reports
  - Contractor's progress reports
  - Environmental inspection Reports

During the meeting on **September 22, 2010** the PGIP team and GOGC representatives had reviewed the following items:

- Communication Issues
- Contract implementation status:
- Documents to be reviewed – GOGC still didn't provide complete documents discussed during the previous meetings
- Construction works status

On **September 24, 2010** the parties had met and discussed the following issues:

- Possible risks for timely completion of the project and relevant steps to be undertaken by GOGC.
- Due to the schedule and the Health and Safety Rule violations the parties have discussed the probability to remove the contractor for lots I, II and III and to negotiate the contract award with second best bidder.

On **September 27, 2010** the PGIP and GOGC teams met and discussed:

- Synchronization of the observations during the visits to construction sites.
- Breaches of the construction schedule and disrespect of the Health and Safety requirements.
- The facts that equipment and techniques used by the contractors are often old and not feasible to the mission tasks.
- The contractor admitted that he can't manage works simultaneously on all three lots. Best decision and advice is to remove not manageable lots from the contractor.

On **September 28, 2010** the parties have met and discussed the following issues:

- GOGC asks that due to the new Vani pipeline construction, the PIG launcher to be eliminated from the Senaki – Poti project.  
It was agreed the PGIP team further to study the issue and if no concerns are raised, to provide additional Letter on No Objection, since previous letter was issued on the original drawings.

During the meeting held on **October 8, 2010** the parties have agreed:

- GOGC to provide list of exact project changes in bends, fittings, valves and wall thickness, their location and GOGC justification for such changes.
- The PGIP team to review them, to compare the new drawings with the old ones and provide final conclusion.

On **October 8, 2010** the sides had held additional meeting and discussed the following items:

- Documents provided by contractor in relation to receiving, handling, storage and transportation of pipes and fittings
- Work plan
- X-Ray procedures and testing
- Hydro-testing procedures and testing

Significant part of the documents is not provided yet and the PGIP team has asked for acceleration of the process.

On **October 11, 2010** the parties have discussed:

- Condition and level of readiness of concrete plant for concrete works on Lots I, II and III. At the stage of assessment it was not in a shape to satisfy the construction needs. Relevant promises were made by the contractor to amend the situation in nearest future. The parties have agreed to assess the changes again after few days.

On **October 12, 2010** the parties have had discussions about:

- Additional clarifications on documentation for the letter on No Objection in relation to changes in pipeline wall thickness.

- Since all necessary info was provided prior to and during the meeting, the Tt team received sufficient materials for announcing the preliminary decision that the Letter on No Objection will be issued in upcoming days.

On **November 2, 2010** the PGIP and GOGC representatives met and discussed the following items:

- Necessity Sakhydro to provide new work plan with detailed description of actions how delays will be eliminated.
- Details which the work plan should contain.
- Organization of the contractors meeting and explanatory work

On **November 13, 2010** the parties have discussed how to accelerate works on the Lots I,II and III. In particular: addition of new crews, increasing speed of excavation activities and commencement of concrete coating of the pipes.

On the same day one more meeting was held and the following details reviewed:

- On the Lots I, II and III the contractor was forced to stop most part of activities because of constant rain.
- The project groundbreaking ceremony should be held in different place, since previously selected site was flooded. GOGC is working on the selection of a location either in Chaladidi or Patara Poti.
- On Lot IV the contractor has serious difficulties with soil preparation, since it's structure is different and is harder to work on, than was anticipated.
- Design for the installation of a 32 meter pile is completed and further deliberation is needed for defining how it can be changed. The current approach is problematic.

On the meeting on **November 5, 2010** the PGIP and GOGC representatives have reviewed the contractor's first invoice.

During the meeting on **November 8, 2010** the parties have reviewed additional payment invoices from the contractors.

On the meeting on **November 9, 2010** GOGC reported about the status of Saguramo – Khashuri project drawings. Two options will be proposed, one with 711 mm pipes and another with 1000 mm pipes. The PGIP team has recommended to conduct preliminary market research for making sure that chosen materials are obtainable.

On **November 11, 2010** the PGIP team performed review of the new work plan. The plan aims at catching up the schedule and at meeting the project deadline.

On **November 18, 2010** discussions took place in relation to changes in river crossing pillar design. It was agreed the GOGC to request the Tt team's official involvement in the design change review.

On **November 22, 2010** the PGIP and GOGC teams have had further detailed review of changes related to pillars for river crossing.

To the same subjects were dedicated meetings on **November 23** and **November 24, 2010**

On **December 1, 2010** the GOGC representatives announced their decision to take an actual construction management on the Lots I, II and III.

As well it was reported that there are problems with railroad crossing. When pipes were pushed underneath the railroad tracks, the teams encountered some obstruction. It is not clear what kind of obstruction it is (could be an old concrete foundation or structure to provide stability to the tracks). Geotechnical borings will take place for clarification, but if the problem will not be resolved, GOGC will change the route to bypass the place but it will cause additional delays.

On **December 6, 2010** GOGC reported that formal instructions were issued to the contractors in relation to the design changes. Based on the report and field information, the process of pillar installation was already started.

The PGIP team has expressed concerns about these actions, since the issue has not been duly studied by the experts and no Letter on No Objection was issued to USAID.

On **December 8, 2010** GOGC representatives informed the PGIP team, that they are inclined to go for 1000 mm pipe deployment in the Saguramo-Khashuri Pipeline. This new pipeline will be built in parallel to the existing one. After pipes will reach Zestafoni, GOGC will have to decide either to use the same 1000 mm pipes, or to change on 711 mm. The attendees agreed the Tt team to receive all necessary docs for the team's final opinion.

On **December 12, 2010** the PGIP and GOGC teams have continued discussions in relation to the Saguramo-Khashuri project changes. GOGC submitted request and is waiting for approval from the Ministry of Energy.

Based on GOGC information there may be some problems with procurement in the future. Namely: out of thirteen authorized countries for participation in bids, only United States, Russia and Ukraine can produce such pipes and limited number of providers may cause certain problems.

GOGC already performed market research in Ukraine with support of the Embassy of Georgia. Required quantity of the pipes might be produced within 6 weeks and after production is finished, delivery will take up to 12 weeks.

Bidding process is expected to start at the end of February. The PGIP team will receive all documents and specifications for final review

#### **3.1.4. Letters of No Objection**

1. In the Q2 the PGIP team has issued letters of No Objection regarding the following

Documents and activities related to the Senaki – Poti – FIZ Project:

On **September 13, 2010** the Letter on No Objection was issued in relation to construction route selection by GOGC. It was concluded that initial route design was not significantly changed. The PGIP team recommended GOGC to reconsider site fencing, or at a

minimum to put up warning signs during the construction. The recommendation was taken into consideration.

Another Letter of No Objection was submitted to USAID in relation to the changes in thicknesses at specified locations. The changes were found to be acceptable.

On **September 13, 2010** the team has provided the No Objection Opinion in relation to the pipe testing results. The PGIP experts participated in all processes from the selection of the batches (lots) to performance of actual tests. It included Chemical, Mechanical and Corrosion analyses. The mentioned examinations gave positive results and it was concluded that the pipes are in appropriate condition.

On **November 9, 2010** the PGIP team has issued the Letter on No Objection in relation to invoice issued by the Senaki – Poti project construction company Khidmsheni. The invoice was related to the following works:

- Topsoil Removal
- Construction Base
- Road Access
- Re-Route of Access
- Pontoon
- Transportation of Coated Pipes
- Transportation of Non- Coated Pipes
- Fittings 90 degree elbows
- Fittings 45 degree elbows

Based on documentation study and construction monitoring, the volume of effort claimed in invoice was proved to be in compliance with the real works on the Lot IV, therefore the PGIP team didn't have any objections.

On **November 22, 2010** the Letter on No Objection was issued for Sakhydro Energomsheni invoice related to the I, II and III Lots. Based on team's observations and construction oversight, it was confirmed that percent completion items shown in the Invoice are matching with the completed activities, therefore the PGIP team didn't have any objections.

On **December 17, 2010** the Letter on No Objection was issued for Invoices, Acceptance Certificates, Form2, Request and Liquidation Forms provided by the contractor.

Based on observations and field studies it was concluded that the percent completion items shown in the documents are in accordance with the real progress on the Lots I, II & III.

On **December 20, 2010** the Letter on No Objection was issued for Invoices, Acceptance Certificates, Form2, Request for progress payment & liquidation for advance Forms submitted by the contractor in relation to the Lot IV. The PGIP team found that the percent completion items shown in the Invoice are in accordance with the real progress.



### 3.1.5. Official Opinions Provided to USAID

Apart from the Letters of No Objection, informal and formal recommendations, based on USAID request the PGIP team has provided formal opinion about the following issues:

On **September 13, 2010** a formal opinion was provided in relation to cost for the Senaki Poti and Saguramo Khashuri pipeline projects.

After considering a narrative description of the estimate evaluation for both projects and a statistical evaluation of the construction bids for the four lots, the PGIP team came to conclusion that GOGC did not underestimate the construction costs.

On **September 30, 2010** based on previous discussions with USAID the Tt team conformed full concurrence in vision related to improvement of communication, coordination and monitoring of project implementation processes. Based on agreement the team has developed a work plan for following up on all project related action and for improving communication with GOGC representatives.

### 3.1.6. Construction Site Visit By USA Ambassador and Minister of Energy of Georgia.

Another significant event was the Senaki – Poti pipeline construction site visit by USA Ambassador and Minister of Energy of Georgia

On **November 17, 2010** Minister of Energy of Georgia Alexander Khetaguri, Ambassador of the United States of America to Georgia John Bass, General Director of Georgian Oil and Gas Corporation Zurab Janjgava and Samegrelo Zemo-Svaneti Governor Zaza Gorozia visited construction site of Senaki-Poti gas main-pipeline.

All visitors emphasized project's importance for the region and for entire country. As the Minister of Energy stated, presidential program "Gas for Each village" is continuing. "This time population of the city Poti and the villages of Khobi region shall get natural gas, altogether 25 000 families. The project is equally important for the development of Poti industrial zone as well as for the improvement of social -economic conditions of the population"- said the Minister.

"The Government of the United States of America is continuing to support Georgia and the help is manifested in financing of different important projects. Construction of the present gas-pipeline shall facilitate economic development of the region, attract investments and shall improve living conditions of the population", - said John Bass the Ambassador of the United States of America to Georgia.

### 3.1.7. Site Visits

On **October 4, 2010** a site visit was made to the Senaki – Poti – Fiz project area and route to verify construction status for all three lots. Generally there were certain deviations from the planned activities and the following comments were made:

- Number of welders deployed is not sufficient.
- Increase in number of excavators and bulldozers is needed
- Topsoil tapping was not performed, because of the constant rain
- On the lot 3 there were no activities due to the mentioned weather conditions.

- Pipes and other materials were kept properly.
- Some of the working crews had just part of the PPE
- Generally the conditions on the site are very bad due to the constant rain.

On **October 6, 2010** a site visit was made to the Senaki – Poti pipeline construction area. Status of works on all three lots was verified. The following comments were made:

- Weather conditions are still causing significant complications and topsoil tapping was not done.
- The only activity on the lot 1 was pipe welding.
- On the lot two contractor was performing two types of activities: welding and X-Ray tests.
- Due to the weather conditions there were no activities on the lot three.
- The improvements in terms of safety were significant. Almost every contractor employee was using full PPE. The contractor has installed safety signs on the route
- Mostly because of the weather conditions it is less probable that the project will be completed in time – by December 15<sup>th</sup>.

On **October 12, 2010** the Tt team has visited the Senaki – Poti pipeline construction site. The purpose of the visit was to check how the cold bending procedures are being followed. The following findings were recorded:

- The studied sample bending was performed in accordance with practices and procedures used in US for the same procedures.
- The stocking of the pipes was done properly.

Generally contractor received positive assessment.

On **October 13, 2010** the Tt team has visited the Senaki – Poti gas pipeline construction sites. Purpose of the visit was to check the status and the quality of ongoing activities.

The following findings were recorded:

- The only activity on Lot 1 was welding.
- Some of the safety signs were no longer in the place.
- On the lot 2 the contractor was performing welding and X-Ray tests near km 16.0. Generally, based on quality control personnel's report, there were only few welds performed on unsatisfactory level and all of them were amended. The rest was based on standards.
- Preparation for demolishing of buildings near the pipeline route was in process.
- Because of the weather conditions, on the Lot three there were only topsoil removing activities in process.
- Construction site for the Lot III can be flooded very easily and this is one of the biggest threats to the project.
- On the Lot 4 it was reported that the contractor has already commenced mobilization, but the Tt team had not observed anything proving it.
- During the visit of the Concrete plant which will be used for building the weights and concrete slabs, the following observations were made:
  - a. Based on plan 150 pieces of weight will be casted every day.
  - b. The completed weights were not staked and the manager indicated that they are in site preparation process for this purposes.

On **October 6** and **October 7, 2010** several site visits were made for environmental assessment of the construction activities.

As it was observed the construction contractor Sakhydroenergomsheni (Sakhydro) is violating the Waste Management Plan. As well the Environmental Emergency Response Plan is not implemented. Generally EHS requirements are not met: eg. Contractor has not mobilized licensed waste management contractor, no spill equipment is on site, the temporary site for waste dislocation has not been arranged both for hazardous as well as for the residential waste. Workers still are not equipped with Personal Protected Equipment (PPE), no signs are used in the construction site.

On all findings appropriate recommendations were submitted to the contractor and GOGC

On **November 5, 2010** site visit was made for verification of environmental compliance and health and safety related issues.

- As it was found although the contractor Sakhydroenergomsheni (Sakhydro) has improvements in EHS issues, but still much has to be done for achieving desirable results. For example: The contractor has mobilized licensed waste management contractor, spill equipments are on site, the temporary site for waste dislocation has been arranged both for hazardous and for the residential waste. Workers are equipped with Personal Protective Equipment (PPE), but still no signs can be found on construction sites.
- As regards to the another contractor “Khidmsheni”, the company needs better organization of waste management and pollution prevention. The streams are regularly forwarded directly by heavy equipment without any water pollution prevention measures
- With the H&S rules there are some improvements, but significant number of safety signs are missing, there is no emergency unit mobilized.

On **November 8, 2010** the Tt team has visited the Senaki – Poti pipeline construction site.

The following observations were made:

- Generally gas pipeline joint preparation is again staying behind the schedule.
- There are no signs of the gas pipeline installation commencement in aerial and road (underground) crossings. Pipes (with previously considered length) are welded and ready for installation only at several crossings.
- There is still no clarity about footing pipes with reinforced concrete. A work production plan has not been presented (contractor will be asked to plan it).
- Trench opening is still not registered on all three lots;
- Preparatory works were finished on the lot IV (river Rioni right bank) and reinforced concrete piles installation has begun.

The Senaki – Potis pipeline site visit performed on November 12-13 has identified the following:

- Re-welding works of previously x-ray checked joints, which were found defective are being performed along with standard welding activities.
- Transportation of pipes to the business yard, topsoil stripping and the pipes allocation at the lane was performed according to the schedule.
- Arrangement of pipeline joints (anticorrosive coating has not been started yet) will again stay behind the schedule.
- The fourth lot will be behind the schedule.

On **November 16** and **November 17, 2010** site visits were made for further monitoring of construction activities related to EHS.

Generally significant improvements had been observed, however some deviations from approved rules related to waste management are still taking place, for example there were absorbent pads found on sites, but there were no deep trays.

On **November 20, 2010** the PGIP team has visited the construction sites and recorded the following observations:

- The Pipeline delivery to the site and soil preparation is completed in accordance with the schedule.
- The pipe welding, construction of bridges over the tranches and vehicle road preparation is not in accordance with schedule.
- Generally all lots are behind the schedule.

Site visit performed on **November 26, 2010** has registered the following findings:

- The pipeline joints welding and coating will again stay behind the schedule.
- The technical design was changed for aerial crossing. Based on studies such change is not acceptable, since existing documentation of engineering-geological estimation does not contain new exploration results related to the soil under piles. Further discussions and study should be organized.
- Generally despite of significant increase of construction pace, all four lots are still behind the schedule.

Site visit on **December 9, 2010** was dedicated to verification of the EHS at construction places.

- The contractor Sakhydroenergomsheni (Sakhydro) has neglected project requirements related to waste management and environmental emergency response plan.
- As regards to Khidmsheni, the company made more violations of the EHS commitments. Namely no pollution prevention and no waste management was addressed.

## **4.0 Power Infrastructure (Electricity Transmission Upgrade, Reconstruction and Operation)**

During the Q2 the PGIP team has performed following activities related to electricity transmission upgrade, reconstruction and operation:

- Studies performed at the beginning of September made clear that project for substation tap cell rehabilitation does not exist, therefore immediate need to obtain materials from various respective agencies emerged.
- From the GSE Projecting Department the PGIP team obtained the single-line schemes of “Menji” and “Tskaltubo” substations.
- As well the team managed to collect the following documents and schemes for further elaboration:
  - a. Open Distribution equipment relay and registration single-line schemes.
  - b. Three-line diagrams for 220kw open distribution equipment AC, 220kv.
  - c. Open distribution equipment relay protection and diagnostics of the management panel cables.
  - d. Reference drawings For DC power panel, 220kv. Open distribution ring differential protection for DC, Single-phase and three-phase short circuit  
Single-line and three-line possible short circuits and SCADA RTU all existing drawings.
- Since the project of substation tap cell rehabilitation does not exist, 220kw transmission line “Senaki – 1.2” project is not complete and in agreement with USAID It was decided to identify independent designing company for undertaking this activity. In total 7 companies expressed interests to participate in the project:
  - 1. LTD. “Saqenergoproecti”.
  - 2. LTD. “Electricity and Illumination Company”.
  - 3. LTD. “Tel Industry Georgia”.
  - 4. LTD. “Arsi Engineering Consulting”.
  - 5. LTD. “Basiani 93”.
  - 6. LTD. “Geo-Ukr – Energy”
  - 7. LTD “Energoqselpoject”

The final decision is anticipated to be made in first quarter of 2011.

### **4.1 Site visits**

During the Q2 of 2010 the PGIP team members performed number of site visits to Tskaltubo and Senaki substations as well to Senaki #1 and #2 Transmission line. As findings have disclosed:

- From 220 towers of the 58 km long line, there are only up to 12 left. Concrete fundaments are significantly damaged.

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- During the construction/rehabilitation work, there will be significant impact on Flora, Fauna and social directions. The area is low lands, swampy in some parts there are
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forests and grazing pastures. There are social issues as well, namely: in some areas construction will require to demolish houses built in direct neighborhood of the line.

- The project design completion and construction work planning requires further in depth studies, which will be performed in first quarter of 2011

## **5.0 Capacity Building**

The SOW for the PGIP lacks any substantial input related to building capacities at GSE and GOGC in terms of policies, strategies, O&M protocols and etc.

Project team has and will provide on-the-job and informal mentoring to both GSE and GOGC personnel, however long term sustainability of PGIP will also depend on a more aggressive capacity building in energy sector.

## **6.0 Public Relations and Branding**

The PGIP team continued activities for increasing a public awareness and transparency in the quarter two.

Main actions were related to the project's official website design. In October the initial version of the site was presented to USAID. USAID made several comments and the design company implemented all proposed changes. After it, the website project was again submitted to USAID for final approval.

When green light for launching the website is given, all necessary information, videos and images will be uploaded and easily accessible for every interested person.

## **7.0 Environmental Assessment**

One of the major tasks in the Q2 was to ensure that all environmental issues are properly envisaged, planned and implemented.

The team performed continuous monitoring of the construction activities. Numerous violations were registered and submitted to GOGC for further reaction.

It is remarkable that both contractors on all Lots of the project have started their operations with gross neglect of existing standards. They were ignoring requirements determined by the Environmental Assessment report (EA) and the Environmental Management Plans (EMP).

By the end of 2010 the PGIP and GOGC team's efforts generated very positive results and significant improvements in the contractors activities were observed.

Despite of this, desirable level in the EHS was not achieved and still much is to be done in following quarters.

## **8.0 Design Activities**

In the Q2 the PGIP has reviewed and supported GOGC in design change activities related to the Senaki – Poti and Saguramo Khashyri project routes and materials.

On September 13 the Letter on No Objection was issued in relation to the construction route changes in initial project.

The PGIP team reviewed materials and issued another Letter on No Objection in relation to the pipeline thicknesses at specified locations.

These actions were performed based on submitted documentation studies and number of site visits.

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